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Department of Public Health

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THOS. D. TUTTLE, M. D., Secretary

HELENA, MONTANA

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DEATH OF SCHOOL CHILDREN.

The Collinwood disaster, resulting in the death of something over 170 school children, has caused much investigation into the means provided for protecting children against death by fire in the school buildings of our country. This is good, and we hope will result in efficient measures being provided to prevent a repetition of such a disaster. However, the loss of the lives of 170 children in the burning building, while appalling, at first thought, is very small compared to the lives lost each year throughout our country by improper school regulations.

By this I mean improper ventilation, heating, lighting, sewage disposal, and the common drinking cup, and all sources of infection and causes of depleted constitutions, too numerous to mention. And not only this, but the crowding, cramming system, resulting in over-worked, broken-down children, subject to infection on exposure to any communicable disease.

These conditions result in more deaths every year, and I might say, every school month, than resulted from the Collinwood disaster. We hear of such a disaster, and hold up our hands in holy horror at the thought that these little ones died as a result of negligence on the part of those entrusted with their care, but each day we see the little white coffin, or the middle sized darker coffin, transported to our graveyards, as a result of negligence on the part of those to whom the children of the country are entrusted, and we not only say nothing, but, what is worse, we do nothing.

Because 170 children met their death from fire, many others will be protected against fire, but are we going to continue to stand back and let children be killed day after day, week after week, month after month, and year after year, by negligence as palpable or more palpable than that resulting in the Collinwood disaster? Are we going to permit a faulty sewer system to continue? Are we going to force our children to breath over and over the same air, this air bearing the germs of communicable diseases? Are we going to permit our children to contract disease by using the common drinking cup? Are we going to permit our children to be broken down by cramming in our schools, let them learn that some long deceased monarch was once a monarch, learn it today and forget it tomorrow? Or are we going to demand that precautions be taken to prevent the death of the children of our country by these faulty regulations?

If, for the protection of the lives of the children in our schools from fires, it is necessary that fire escapes be built, that hallways be widened, that heating plants be surrounded by proper protection, that the buildings be made as nearly fire proof as possible, is it not equally and more important that some precautions be taken against the destruction of life by the less phyrotechnical, though equally effective method, the dissemination of disease germs among the children?

"FRENZIED FINANCE."

The health officer who takes charge of a district, either county or city, infected with communicable diseases, and rids such district of such diseases, or who takes charge of a district free from communicable diseases and keeps it free from such diseases, is as officer whose value to the people of the community cannot be estimated in dollars and cents.

The health officer whose district is free from disease may appear, at first thought, to have little to do, but such district is kept free from disease only by the constant vigilance of such health officer, and, while he may appear to have little to do, he is constantly watching for unsanitary conditions and seeing that such unsanitary conditions are abolished. He may do these things in such a quiet way that the public does not know that he is doing anything, and yet he is protecting this very public from communicable and other diseases.

It is the duty of the county commissioners and city council to superintend the public funds and see that they are expended in a wise and proper manner, but what constitutes wise expenditure of public funds? Is it not wisdom that the greatest benefit shall be derived from the expenditure of such funds, rather than that the smallest amount possible shall be expended, regardless of results? A cheap health officer is the most expensive investment that can be made. If you employ a man for five dollars, he may give you five dollars' worth of work and that is all you can possibly expect, but if you employ a man for $1,000 you are entitled to expect $1,000 worth of work from that man, and if you do not get it, it is your own fault.

The efficiency of health officers can be estimated in this state, at least to a large extent, by the prevalence of one disease in a certain district, namely, typhoid fever. This disease is the result of unsanitary conditions, and if a health officer does his duty, these unsanitary conditions will not be permitted.

During the year 1907 there were 902 cases of typhoid fever reported. Of these 902 cases, 531 were reported from four counties of this state, leaving the balance of 371 to come from the other 23 counties. While these 531 cases were reported from four counties, a large number of those reported from one county came from another. At the same time, there were 32 cases reported from the latter county, making a total of 563 reported from these five counties, leaving 339 cases coming from the other 22 counties.

It may be claimed that conditions in the different counties differ, and yet, this cannot be taken as a foundation justifying such results. Do the conditions in Carbon county differ radically from those of the mining district, especially in the neighborhood of Chestnut and Somers, in Gallatin county? Yet we find that 105 cases were reported from Carbon county, as against 21 from Gallatin, and the large majority of those reported from Gallatin county were from the northern part of the county and not from that part where the conditions simulate those in Carbon county. Out of these 105 cases reported from Carbon county, more or less of them must have become county charges and have been treated at the expense of the county.

The statement has been made, and with some foundation, that the diseases are not as completely reported in some counties as they are in others. This was true two years ago, but during the last two years, especially during the last year, the communicable diseases are well reported in all counties. In many of the counties they have been ferreted out by the health officer, and physicians and individuals in this county have been made to realize that failure to report a communicable disease will be prosecuted, until it is now rare for a health officer to find a communicable disease that has been recognized and has not been reported.

In one county, 18,000 men, approximately, were employed in railroad construction work in 1907, and while 22 cases of typhoid fever were reported from this county, the health officer informs me that not one of these cases came from construction camps.

Another county reports 187 cases of typhoid fever, a large number of which came from construction camps, and most of these came from the camps east of the county seat, while only a few came from the camps west of the county seat. How many of these cases became county charges and what it cost the county to care for them I am not informed. In two other counties, the health officers are employed on the same basis, that is, the health officer receives a salary per day for each day employed in sanitary work.

The health officer of one of these counties informs me that it was his desire to inspect the camps in his county at regular intervals during the summer months, but that he was informed by the county commissioners that he would not be allowed his salary for inspecting such camps unless the investigations were ordered by the board, and the orders were not given.

A member of the board of county commissioners of the other county told me that their health officer was instructed to make all investigations necessary, and that not only was it not a question of allowing him his salary for making these investigations, but that if he did not make them the board would not hesitate to prosecute him. The result is that five cases of typhoid fever were reported from the latter county, whereas 30 were reported from the former.

In a letter from the health officer of the former county I am informed that the cost to the county for caring for pauper cases of typhoid fever resulting from unsanitary conditions in camps during 1907 was approximately $2,500. This amount does not include the cost to the individuals who are not paupers, nor any estimate of the value of the lives lost as a result of unsanitary conditions in camps in this county.

To have had these camps properly inspected and to have seen that sanitary conditions were maintained would have cost the county $100 per month, or about that amount. This inspection would have been necessary only during three or four months, making a total cost of $400 as against the total cost to the county in caring for pauper typhoids of $2,500. In other words the county as a corporation would have saved $2,100 by having expended $400 necessary for proper inspection.

This is not only the opinion of the writer, but the reply made by the county health officer to the following question, "Do you believe that regular inspection of camps would have prevented typhoid fever in 1907 in your county?" was "Yes."

This saving of $2,100 to the county by the proper expenditure of $400 does not take in the amount that would have been saved to the individuals of the county. These individuals represent members of the corporation whose money the county commissioners were supposed to expend properly.

The figures we give of cost to the county in caring for typhoid fever paupers in the county are supplied to me by the county health officer, he stating that the figures were procured by asking the county clerk as to the cost. If this county met with an expense of $2,500 in caring for typhoid fever paupers with only 30 cases reported, what must have been the result in the five counties from which 563 cases were reported?

In one of these counties conditions were similar to those in the county from which the above figures were secured, in regard to the health officer's salary, and the question of inspecting the camps. In another, the health officer's salary is merely nominal. In another it is also nominal, but it is the fault of the health officer himself, as he bid for the work at this salary.

The difference in the number of cases of typhoid fever reported from two counties with similar conditions shows the effect of energetic action on the part of the health officer. The health officer in at least one county is in no way to blame. He has not only assured me that he was ready and willing at all times to make these inspections, but he wrote to me and wanted to know if he proceeded to make these investigations contrary to the instructions of his board if he could collect the salary agreed upon by the board for such work.

In no instance have I found a health officer in this state receiving a reasonable salary for his work unwilling to perform the duties of his office. In no instance has the number of cases of typhoid fever been great in any county where the health officer is receiving reasonable compensation. In some counties they have been kept down where the health officer is not receiving a reasonable compensation, but in most of these instances the health officer has set his own salary by bidding for the work, and they invariably assure me that they would not undertake the work again at a small salary.

This article is not intended to boom health officers' salaries, but merely to show, as do the figures from one county, that it is not a wise expenditure of money to refuse to employ a competent health officer at a reasonable salary and as a result spend six times as much and more of the county's fund for overcoming the conditions resulting from such refusal. And not only this six times as much, but many more times as much expended from the pockets of the individuals who did not become county charges.

A health officer has to combat with not only typhoid fever, but a large number of other communicable diseases. After one of these diseases is established there is little use for a health officer except to prevent its spread. His function is to prevent disease. After it is established you must depend upon your family physician and pay the cost, not only in dollars and cents, but often in the life of a loved one.

If the people of this state, or any other state, hope to get results from local health officers they must employ the best men they can secure for the position and pay them a salary commensurate with the duties required.

If it is worth eight dollars a day for county commissioners to meet and allow bills, a task which does not require any special training, it is certainly worth more than this amount to secure the services of a man who has devoted his entire life to the study of one subject.

I repeat that the value of an efficient health officer to the people of a community cannot be estimated in dollars and cents and the county commissioners who employ a cheap health officer, or who refuse to compensate competent health officers for services, are not expending money belonging to the county or the city with judgment and due discrimination.

COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF MARCH, 1908.

SMALLPOX—Cases of smallpox were reported as follows: Fergus 2; Flathead 1; Gallatin 1 (in Bozeman); Granite 2; Lewis and Clark 4 (all in Helena); Missoula 41 (27 in Missoula City); Ravalli 6; Sanders 5; Silver Bow 15 (8 in Butte); Teton 3; Yellowstone 2 (both in Billings); total 82; total last month 58; total last March 5.

DIPHTHERIA—Cases of diphtheria were reported as follows: Cascade 23 (11 in Great Falls); Chouteau 1; Dawson 2; Deer Lodge 1 (in Anaconda); Fergus 2; Flathead 1; Granite 3; Jefferson 4; Lewis and Clark 1 (in Helena); Madison 1;

Missoula 9 (6 in Missoula City); Park 4 (3 in Livingston); Powell 3; Sanders 1; Silver Bow 9 (8 in Butte); Valley 1; Yellowstone 13 (5 in Billings); total 79; total last month 70; total last March 25.

SCARLATINA—Cases of scarlet fever were reported as follows: Beaverhead 17; Broadwater 1; Cascade 7 (3 in Great Falls); Custer 1; Deer Lodge 2 (in Anaconda); Flathead 6; Gallatin 10 (3 in Bozeman); Jefferson 2; Lewis and Clark 5 (4 in Helena); Madison 13; Missoula 14 (all in Missoula City); Park 6 (1 in Livingston); Ravalli 1; Silver Bow 14 (9 in Butte); total 99; total last month 171; total last March 14.

MEASLES—Cases of measles were reported as follows: Beaverhead 11; Broadwater 1; Cascade 2 (both in Great Falls); Chouteau 4; Custer 3; Dawson 1; Fergus 1; Flathead 34; Missoula 1 (in Missoula City); Park 12 (all in Livingston); Silver Bow 14 (all in Butte); Valley 2; Yellowstone 6 (4 in Billings); total 92; total last month 141; total last March 110.

TYPHOID FEVER—Cases of typhoid fever were reported as follows: Cascade 5 (all in Great Falls); Chouteau 1; Lewis and Clark 1 (in Helena, imported from Clancy); Missoula 1 (in Missoula City); Powell 2; Rosebud 4; Yellowstone 3 (all in Billings, reported from county); total 17; total last month 15; total last March 14.

BIRTHS.

Births reported to the State Board of Health of Montana for March, 1908, and comparative birth and death rate in State.

	Males	Females	Totals	Deaths	Excess of Births	Excess of Deaths		Males	Females	Totals	Deaths	Excess of Births	Excess of Deaths
Beaverhead	2	6	8	5	3	....	Meagher	2	2	4	1	3	....
Broadwater	1	2	3	3	....	....	Missoula	14	6	20	40	....	20
Carbon	10	11	21	19	2	....	Park	13	9	22	11	11	....
Cascade	28	20	48	37	11	....	Powell	5	3	8	9	....	1
Choteau	5	10	15	4	11	....	Ravalli	15	13	28	9	19	....
Custer	7	3	10	9	1	....	Rosebud	1	4	5	2	19	....
Dawson	6	7	13	6	7	....	Sanders	2	2	4	4	3	....
Deer Lodge	12	13	25	22	3	....	Silver Bow	35	42	77	70	7	....
Fergus	4	2	6	10	....	4	Sweetgrass	2	2	4	2	2	....
Flathead	17	15	32	14	18	....	Teton	4	1	5	1	4	....
Gallatin	5	4	9	11	....	2	Valley	7	7	14	9	5	....
Granite	....	1	1	3	....	2	Yellowstone	14	25	39	22	17	....
Jefferson	5	2	7	8	....	1							
Lewis and Clark	8	7	15	18	....	3	Totals	229	226	455	359	96	33
Madison	5	7	12	10	2	....							

Births reported from Cities of 5,000 or more inhabitants.

Anaconda	12	13	25	14	5	....	Great Falls	18	16	34	27	7	....
Billings	10	13	23	9	14	....	Helena	7	5	12	17	5	....
Bozeman	2	3	5	7	....	2	Livingston	9	7	16	9	7	....
Butte	27	37	64	42	22	....	Missoula	9	3	12	25	13	....

MORTALITY

Deaths Reported to the State Board of Health for the Month of March, 1908, Arranged According to Counties,

	Tuberculosis	Diphtheria	Scarlet Fever	Measels	Typhoid Fever	Meningitis	Whooping-Cough	Pneumonia	Nephritis	Organic Heart Disease	Malignant Tumors	Acute Intestinal Diseases	Violence	Suicide	Alcoholism	All other Causes	Totals
Beaverhead			2					1			1					1	5
Broadwater													1		1	1	3
Carbon	2							3	3	2		1	1			7	19
Cascade	3	4	1				4	3	1	3	1			2		15	37
Chouteau																4	4
Custer								1						1		7	9
Dawson	2				1	1						1				1	6
Deer Lodge						1		2	2	3	1				1	12	22
Fergus	1	1							1	1			1	1	1	3	10
Flathead	2	1							1				2			8	14
Gallatin	1							2	3		1					4	11
Granite									1							2	3
Jefferson	1							1		1		1	2			2	8
Lewis and Clark	1							2	2	4			1	1		7	18
Madison			2							1	1					6	10
Meagher													1				1
Missoula	4	3			1	5		6	2	2		1	7		1	8	40
Park	1					1		1			1		2			5	11
Powell	2							2		1			2	1		1	9
Ravalli	1							4	1							3	9
Rosebud				1									1				2
Sanders				1				1					2				4
Silver Bow	6	2	2		1	2		17	5	8		1	6	1		7	70
Sweet Grass								1			1						2
Teton								1									1
Valley		1							1							7	9
Yellowstone	1	3		1	3					1	2		5			6	22
Totals	28	15	7	3	6	10	4	48	23	27	9	5	34	7	4	129	359

Deaths per 100,000; 128.11

Annual Death rate per 1,000; 14.37

Deaths reported from cities of 5,000 or more inhabitants

Anaconda						1		2		2	1				1	7	14
Billings	1	1			1						2					4	9
Bozeman	1								2		1					3	7
Butte	4	2				1		10	4	6		1	1	1		12	42
Great Falls	3	3					3	1	1	2	1			1		12	27
Helena	1							2	1	4			1	1		7	17
Livingston	1					1		1			1					5	9
Missoula	3	1			1	5		4	2	2			1		1	5	25